

DETAILED ACTION

1. The following **NOTICE OF ALLOWANCE** is in response to Applicant's submission received on 12/10/2010.
2. The restriction to Claim 44 is herein withdrawn. Claim 44 has been amended such that it is commensurate in scope with independent Claims 1, 12 and 23.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen Palan on 12/24/2010.

In the Claims:

Please amend Claim 1 as follows:

1. (Currently Amended) A computer-implemented method for the optimization of a process, comprising:
providing a system comprising:
an action selection computer, comprising:

a storage medium for storing an action database containing a set of offers and an action selection module; and

a first processor; and

a customer profiling computer comprising:

a storage medium containing a customer profile database and a customer profiling module comprising at least one customer profiling algorithm; and

a second processor for executing the at least one customer profiling algorithm;

receiving, by the customer profiling module on the customer profiling computer, information about a customer and a customer need, ~~wherein the information is received via one or more of monitoring clickstream data, receiving information directly entered by the customer, and acquiring information by an agent;~~

matching, by the customer profiling module on the customer profiling computer, the information about the customer to a profile stored in the customer profile database based on the customer information;

selecting, by the action selection module on the action selection computer using an action selection algorithm, an offer from a set of offers associated with the profile, wherein each offer in the set offers is unique, wherein the set of offers comprises a plurality of alternative offers associated with the customer need and a business context;

presenting, by the action selection module on the action selection computer, the offer to the customer associated with the profile;

receiving, by the action selection module on the action selection computer, a response to the offer from the customer,

storing the response in the action database in the action selection computer;

repeating the selecting, presenting, receiving and storing steps for the customer and each of a plurality of customers, wherein an order of selection and presentation of offers differs between the plurality of customers;

determining a distribution of customer responses to the set of offers;

analyzing, by the action selection module, the distribution of responses to all offers of the set of offers presented to the customers associated with the profile, wherein the analysis identifies an order of selection and presentation of offers of the set of offers that best fits the customer need and the business context for a given profile; and

updating, by the action selection module, a selection and presentation order of offers of the set of offers in the action database based on the analysis of the distribution of responses, wherein future offers presented to customers associated with the profile are selected by the action selection module from the updated action database based on the analysis,

wherein the order of selection and presentation of offers is an action and different orders of selection and presentation of offers are different actions, wherein actions selected for the customer and each of a plurality of customers is determined by updating a response forecast and updating the action selection algorithm by one of:

updating the response forecast and then updating the action selection algorithm according to the updated response forecast wherein the updated action selection algorithm is applied intermittently by one of: a per customer basis, a batchwise basis or in an amalgam of the per customer basis and the batchwise basis; or

updating the response forecast and updating the action selection algorithm by generating a n-tuple vector of proportions, where n defines the number of actions, wherein the n-tuple vector of proportions defines how a stream of profiled customers are to be allocated across the set of actions, randomly allocating customers according to the n-tuple vector of proportions and then iteratively updating the action selection algorithm and the response forecast according to the responses to the set of actions by the stream of profiled customers.

Please amend Claim 12 as follows:

12. (Currently Amended) A system for the optimization of a process, comprising:

a customer profiling computer comprising:

a first processor;

a non-transitory machine readable media ~~for~~ storing a customer profile database containing instructions ~~translatable for causing~~ that when executed by the processor configure the customer profiling computer to:

~~receive information about a customer and a customer need, wherein the information is received via one or more of monitoring clickstream data, receiving information directly entered by the customer, and acquiring information by an agent;~~

match the information about the customer to a profile stored in the customer profile database based on the customer information and one or more of a customer need and a business context; and

an action selection computer comprising:

a second processor; and

a second non-transitory machine readable media for storing an action database containing a set of offers and a set of instructions ~~translatable for~~
~~causing that when executed by the second processor configure~~ the action selection computer to:

select, using an action selection algorithm, an offer from a set of offers associated with the profile, wherein each offer in the set of offers is unique, wherein the set of offers comprises a plurality of alternative offers associated with the customer need and a business context;

present the offer to the customer associated with the profile;

receive a response to the offer from the customer,

store the response in the action database in the action selection computer; and

repeat the select, present, receive and store steps for the customer and each of a plurality of customers, wherein an order of selection and presentation of offers differs between the plurality of customers;

determine, by the action selection computer, module, a distribution of customer responses to the set of offers;

analyze, by the action selection computer, module, the distribution of responses to all offers of the set of offers presented to the customers associated with the profile, wherein the analysis identifies an order of selection and presentation of offers of the set of offers that best fits the customer need and the business context for a given profile; and

update, by the action selection computer, module, a selection and presentation order of offers of the set of offers in the action database based on the analysis of the distribution of responses, wherein future offers presented to customers associated with the profile are selected by the action selection module from the updated action database based on the analysis,

wherein the order of selection and presentation of offers is an action and different orders of selection and presentation of offers are different actions, wherein actions selected for the customer and each of a plurality of customers is determined by updating a response forecast and updating the action selection algorithm by one of:

updating the response forecast and then updating the action selection algorithm according to the updated response forecast wherein the updated action selection algorithm is applied intermittently by one of: a per customer basis, a batchwise basis or in an amalgam of the per customer basis and the batchwise basis; or

updating the response forecast and updating the action selection algorithm by generating a n-tuple vector of proportions, where n defines the number of actions, wherein the n-tuple vector of proportions defines how a stream of profiled customers are to be allocated across the set of actions, randomly allocating customers according to the n-tuple vector of proportions and then iteratively updating the action selection algorithm and the response forecast according to the responses to the set of actions by the stream of profiled customers.

Please amend Claim 23 as follows:

23. (Currently Amended) A system for the optimization of a process, comprising:

a customer profiling computer comprising:

a first processor;

a non-transitory machine readable media for storing a customer profile database and a customer profiling module ~~stored on the machine readable media;~~ that include a set of instructions that when executed by the processor configure the customer profiling computer to perform:

~~a computer-readable medium having a software program containing a set of instructions for executing by the customer profiling computer, wherein the set of instructions are translatable by the customer profiling module for:~~

receiving, by the customer profiling module, information about a customer and a customer need, ~~wherein the information is received via one or more of monitoring clickstream data, receiving information directly entered by the customer, and acquiring information by an agent;~~

matching the information about the customer to a profile stored in the customer profile database based on the customer information and one or more of a customer need and a business context; and

an action selection computer comprising:

a second processor; and

a second non-transitory machine readable media ~~for~~ storing an action database containing a set of offers; and an action selection module~~[[; and]]~~ that include a set of instructions that when executed by the second processor configure the action selection computer to perform:

~~a computer readable medium having a software program containing a set of instructions for executing by the action selection computer, wherein the set of instructions are translatable by the action selection module for:~~

identifying a set of offers to be presented to a plurality of customers based on the profile associated with the plurality of customers, wherein each offer in the set of offers is unique, wherein the set of offers comprises a plurality of alternative offers associated with the customer need and a business context;

selecting, using an action selection algorithm, ~~by the action selection module~~, an offer from a set of offers;

presenting, by the action selection ~~module~~ computer, the offer to the customer associated with the profile;

receiving a response to the offer from the customer,

storing the response in the action database in the action selection computer; and

repeating the selecting, presenting, receiving and storing steps for the customer and each of a plurality of customers, wherein an order of selection and presentation of offers differs between the plurality of customers;

determining a distribution of customer responses to the set of offers;

on the action selection computer, analyzing the distribution of responses to all offers of the set of offers presented to the customers associated with the profile, wherein the analysis identifies an order of selection and presentation of offers of the set of offers that best fits the customer need and the business context for a given profile; and

updating, by the action selection computer, ~~module~~, a selection and presentation order of offers of the set of offers in the action database based on the analysis of the distribution of responses, wherein future offers presented to customers associated with the profile are selected by the action selection module from the updated action database based on the analysis,

wherein the order of selection and presentation of offers is an action and different orders of selection and presentation of offers are different actions, wherein actions selected for the customer and each of a plurality of customers is determined by updating a response forecast and updating the action selection algorithm by one of:

updating the response forecast and then updating the action selection algorithm according to the updated response forecast wherein the updated action selection algorithm is applied intermittently by one of: a per customer basis, a batchwise basis or in an amalgam of the per customer basis and the batchwise basis; or

updating the response forecast and updating the action selection algorithm by generating a n-tuple vector of proportions, where n defines the number of actions, wherein the n-tuple vector of proportions defines how a stream of profiled customers are to be allocated across the set of actions, randomly allocating customers according to the n-tuple vector of proportions and then iteratively updating the action selection algorithm and the response forecast according to the responses to the set of actions by the stream of profiled customers.

Please amend Claim 44 as follows:

44. (Currently Amended) A method comprising:

receiving, by a processor, a set of action for a first customer profile, each action in the set of action including a plurality of offers and a plurality of free amenities corresponding to each of the plurality of offers and an order of presentation of the plurality of offers differs for each action;

receiving, by the processor, a business context;

receiving, by the processor, information about a plurality of customers and needs of the plurality of customers;

determining, by the processor, that the plurality of customers match the first customer profile;

selecting, by the processor, an action from the set of actions for the first customer profile for presentation to each of the plurality of customers, ~~the selection of the action being based on a vector of proportions defining an allocation of customers across the set of actions;~~ wherein the order of selection and presentation of offers is an action and different orders of selection and presentation of offers are different actions, wherein actions selected for the customer and each of a plurality of customers is determined by updating a response forecast and updating the action selection algorithm by updating the response forecast and updating the action selection algorithm by generating a n-tuple vector of proportions, where n defines the number of actions, wherein the n-tuple vector of proportions defines how a stream of profiled customers are to be allocated across the set of actions, randomly allocating customers according to the n-tuple vector of proportions and then iteratively updating the action selection algorithm and the response forecast according to the responses to the set of actions by the stream of profiled customers;

determining, by the processor, a distribution of responses from each of the plurality of customers to the presented action in the set of actions; and

identifying, by the processor, based on the distribution of responses and accounting for the vector of proportions, an action from the set of actions that best fits the customer need and business context for the first customer profile.

Please cancel Claim 45.

Allowable Subject Matter

4. Claims 1-3, 6, 7, 12, 17, 23, 24, 34, 35, 37 and 40-44 are allowed.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

The closest prior art to the claimed invention is over Choi et al. US 6,895,405 (herein Choi), in view of Holloway et al., US 2003/0033193 (herein Holloway); further in view of Herz et al., US 2001/0014868 (herein Herz).

Neither Choi, Holloway or Herz alone or in combination disclose or teach the claimed method of Claims 1, 12, 23 and 44 where selection and presentation of offers is selected for each customer by updating a response forecast and updating an action selection algorithm by either: updating the response forecast and then updating the action selection algorithm according to the updated response forecast wherein the updated action selection algorithm is applied intermittently by one of: a per customer basis, a batchwise basis or in an amalgam of the per customer basis and the batchwise basis; **OR** updating the response forecast and updating the action selection algorithm by generating a n-tuple vector of proportions, where n defines the number of actions, wherein the n-tuple vector of proportions defines how a stream of profiled customers are to be allocated across the set of actions, randomly allocating customers according to the n-tuple vector of proportions and then iteratively updating the action selection

algorithm and the response forecast according to the responses to the set of actions by the stream of profiled customers.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **BRETT FEENEY** whose telephone number is **571.270.5484**. The Examiner can normally be reached on Monday-Thursday, 7:30am-6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Lynda Jasmin** can be reached at **571.272-6782**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

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or faxed to **571-273-8300**.

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